# State of Alaska FY2005 Governor's Operating Budget

Department of Public Safety
Laboratory Services
Component Budget Summary

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# **Component: Laboratory Services**

# **Contribution to Department's Mission**

The mission of the Scientific Crime Detection Laboratory is to provide forensic science services to law enforcement agencies.

# **Core Services**

- 1) The Alaska Scientific Crime Detection Laboratory is the only forensic facility available in Alaska to provide forensic services at no charge to all law enforcement agencies.
- 2) Forensic services include the scientific examination and detailed analysis of evidence in criminal cases, assistance with crime scene investigations to include expert testimony in court regarding the results of the testing of evidence, and training of law enforcement officers regarding proper evidence collection and preservation.
- 3) The crime laboratory's areas of expertise are latent fingerprints, trace evidence, footprint/tiretrack, controlled substances, blood alcohol analysis, serology, DNA, firearm/toolmark, crime scene investigations, and fish and wildlife examinations.
- 4) The crime laboratory administers the statewide breath alcohol program, which provides law enforcement agencies with properly calibrated and certified instruments for administering evidential breath tests. Expert testimony in alcohol-related court proceedings and support for non-evidential breath test devices is also provided.
- 5) The Alaska Scientific Crime Detection Laboratory maintains Alaska's DNA Identification System. DNA profiles are routinely uploaded into the National DNA Index System (NDIS) and searched against profiles submitted by other states.
- 6) Crime laboratory personnel are active members in several organizations that have the responsibility for setting the standards for training and certification of analysts nationally in the various forensic disciplines as well as accreditation standards for crime laboratories.

#### **End Results Strategies to Achieve Results** (1) Use forensic science to assist statewide law (1) Maintain the highest scientific standards for all enforcement with their criminal investigations. forensic services provided to Alaskan law enforcement. Target: Analyze DNA evidence and increase use of data base comparisons to assist law enforcement. Target: Ensure that journey level staff are fully proficient in Measure: % change in number of criminal investigations their respective specialties. Measure: % of authorized forensic staff who are journey aided by DNA data base "hits." level criminalists. Target: Analyze latent fingerprint evidence and increase use of data base comparisons to assist law enforcement. Target: Ensure that Alaska's scientific crime detection Measure: % change in number of criminal investigations laboratory meets recognized standards for all forensic aided by fingerprint data base "hits." services provided. Measure: # of forensic specialties that meet accreditation (2) Help ensure proper crime scene techniques to standards of the American Society of Crime Laboratory gather evidence for use in criminal investigations. Directors/Laboratory Accreditation Board (ASCLD/LAB). (2) Maintain access to forensic databases. Target: Respond to crime scenes when requested by law enforcement. Measure: # of crime scene investigations by forensic Target: Maintain Alaska's DNA database. scientists. Measure: # of DNA entries added. (3) Use forensic science to help prevent traffic Target: Access and contribute to national DNA

#### **End Results Strategies to Achieve Results** accidents and fatalities or injuries caused by databases. impaired drivers. Measure: # of DNA profiles added to the national DNA database by Alaska. Target: Provide traffic enforcement officers with evidence gathering techniques to enforce laws against Driving Under (3) Train law enforcement officers in proper crime scene techniques for collecting forensic evidence. the Influence (DUI). Measure: # of DUI tests administered by law enforcement statewide. Target: Assist all law enforcement officers statewide to recognize and appreciate the investigative value of forensic (4) Assist in successful criminal prosecutions by evidence collected at crime scenes. providing expert testimony in court statewide. Measure: # of law enforcement officers trained in proper crime scene techniques. Target: Provide expert testimony whenever requested by (4) Manage the Statewide Breath Alcohol Program. District Attorneys. Measure: # of cases where expert testimony was provided in court. Target: Analyze blood alcohol evidence to assist in DUI investigations. Measure: # of blood alcohol case reports issued to assist investigators. (5) To help ensure successful criminal prosecutions, forensic experts travel to and testify at trials. Target: Efficiently schedule court testimony to minimize delays in ongoing forensic investigations. Measure: # of hours scientists were away from forensic

# **Major Activities to Advance Strategies**

duties for court.

- Enter additional convicted offender profiles
- Enter additional forensic profiles
- Train law enforcement to submit more "no-suspect" cases
- Laboratory analysts shall participate in proficiency testing
- Expert witness testimony monitoring, performed by coworker or supervisor, to comply with accreditation
- Maintain and follow the laboratory's quality assurance program
- Provide continuing education for analysts
- Perform audits of laboratory operations

- Continuing education of laboratory analysts to maintain accreditation
- Audits of laboratory operations, to be performed internally for 4 sequential years, and in the 5th year by an inspector from the accreditation board
- Provide training to supervisor of Statewide Breath Alcohol Program
- Provide calibration alcohol standards
- Certify DataMaster verification of calibration reports
- As needed, repair or replace instruments used in Statewide Breath Alcohol Program
- Provide necessary supplies and expert testimony to support Statewide Breath Alcohol Program

FY2005 Resources A	llocated to Achieve Result	es
FY2005 Component Budget: \$2,776,100	Personnel: Full time	29
•	Part time	0
	Total	29

#### Performance Measure Detail

(1) Result: Use forensic science to assist statewide law enforcement with their criminal investigations.

Target: Analyze DNA evidence and increase use of data base comparisons to assist law enforcement.

Measure: % change in number of criminal investigations aided by DNA data base "hits."

Analysis of results and challenges: New measure. Data will be added as it becomes available.

**Target:** Analyze latent fingerprint evidence and increase use of data base comparisons to assist law enforcement. **Measure:** % change in number of criminal investigations aided by fingerprint data base "hits."

Analysis of results and challenges: New measure. Data will be added as it becomes available.

(2) Result: Help ensure proper crime scene techniques to gather evidence for use in criminal investigations.

Target: Respond to crime scenes when requested by law enforcement.

**Measure:** # of crime scene investigations by forensic scientists.

**Analysis of results and challenges:** Although evidence is gathered from most crime scenes by police officers, forensic scientists are sometimes requested to gather evidence in complex circumstances.

(3) Result: Use forensic science to help prevent traffic accidents and fatalities or injuries caused by impaired drivers.

Target: Provide traffic enforcement officers with evidence gathering techniques to enforce laws against Driving Under

the Influence (DUI).

Measure: # of DUI tests administered by law enforcement statewide.

**Analysis of results and challenges:** Over 100 trainers have certified over 1,000 operators in use of current technology that has replaced the Breathalyzer.

(4) Result: Assist in successful criminal prosecutions by providing expert testimony in court statewide.

Target: Provide expert testimony whenever requested by District Attorneys.

**Measure:** # of cases where expert testimony was provided in court.

**Analysis of results and challenges:** When forensic scientists testify in court as expert witnesses, they are unable to perform analysis on other pending cases. This opportunity cost is significant and is expressed in terms of hours away from the lab, which was 1,165 hours in FY02 and 1,066 hours in FY03.

# (1) Strategy: Maintain the highest scientific standards for all forensic services provided to Alaskan law enforcement.

Target: Ensure that journey level staff are fully proficient in their respective specialties.

**Measure:** % of authorized forensic staff who are journey level criminalists.

Analysis of results and challenges: This measures the percentage of journey level criminalists compared to total authorized staffing. Full proficiency is required for journey level criminalist staff, but some staff are hired in a training or associate capacity and thus perform under supervision rather than conducting independent analysis. This reduces overall productivity due to the training and supervision requirements. Also, when positions are vacant, that also reduces the total criminalist staffing available to conduct specialized forensic analysis. This data is reflected as of July 1 of each respective year.

**Target:** Ensure that Alaska's scientific crime detection laboratory meets recognized standards for all forensic services provided.

**Measure:** # of forensic specialties that meet accreditation standards of the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB).

Analysis of results and challenges: Alaska's Scientific Crime Detection Laboratory specializes in and has been accredited in eight areas of most importance to statewide criminal investigations, including: controlled substances, crime scenes, DNA, firearms/toolmarks, latent prints, serology, toxicology (blood alcohol), and trace evidence. Forensic analysis of questioned documents, or serology (body fluids) must be sent to other accredited laboratories. In FY2002, accreditation was obtained for crime scene evidence collection, the first of any state lab in the nation to be so accredited. Accreditation must be maintained by periodic review.

# (2) Strategy: Maintain access to forensic databases.

Target: Maintain Alaska's DNA database.

Measure: # of DNA entries added.

Analysis of results and challenges: New measure. Data will be added as it becomes available.

Target: Access and contribute to national DNA databases.

Measure: # of DNA profiles added to the national DNA database by Alaska.

# (3) Strategy: Train law enforcement officers in proper crime scene techniques for collecting forensic evidence.

**Target:** Assist all law enforcement officers statewide to recognize and appreciate the investigative value of forensic evidence collected at crime scenes.

Measure: # of law enforcement officers trained in proper crime scene techniques.

**Analysis of results and challenges:** Since evidence is gathered from most crime scenes by police officers, and forensic scientists are usually not available in all cases, especially in areas outside the Anchorage, forensic scientists provide frequent classes.

# (4) Strategy: Manage the Statewide Breath Alcohol Program.

**Target:** Analyze blood alcohol evidence to assist in DUI investigations. **Measure:** # of blood alcohol case reports issued to assist investigators.

Analysis of results and challenges: New measure. Data will be added as it becomes available.

# (5) Strategy: To help ensure successful criminal prosecutions, forensic experts travel to and testify at trials.

Target: Efficiently schedule court testimony to minimize delays in ongoing forensic investigations.

Measure: # of hours scientists were away from forensic duties for court.

Analysis of results and challenges: New measure. Data will be added as it becomes available.

# **Key Component Challenges**

## Increased Demand for DNA Testing

Because of the effectiveness of Alaska's DNA database, officers are becoming more aware of the potential of DNA evidence to solve crime. The number of evidence submittals requesting DNA testing continues to increase. A fifth DNA Criminalist was hired in September 2003 in order to help address this critical need. To increase the efficiency of DNA evidence processing, the crime lab will use federal grant funds to purchase equipment to implement recently developed DNA technology. To maximize the benefit of DNA testing, the crime lab is working closely with prosecutors and investigators to prioritize the backlog of DNA casework.

Alaska's DNA database law (AS 44.41.035) was expanded in July 2003 to include collecting DNA samples from all convicted felons and those convicted of any misdemeanor crime against a person. This will greatly increase the number of convicted offender samples submitted to the crime laboratory. Although federal funds are expected to pay for the DNA testing of these samples, no additional state funds were appropriated to pay for collection kits and handling of these samples at the crime lab. Legal challenges to Alaska's DNA database have complicated the state's ability to collect DNA samples from all individuals included in the recent changes to AS 44.41.035.

#### Re-implementation of Toxicology Testing

The laboratory has begun a pilot project that re-implements toxicology screening of blood and urine to indicate abuse of common drugs. This service was discontinued in FY1999 because of lack of personal service funding for a toxicology criminalist and the obsolescence of the testing equipment utilized for this purpose. Toxicology testing is generally accomplished in two stages, screening and confirmation. This pilot project focuses on implementing an initial toxicology screening for opiates, cocaine, methamphetamine, marijuana, and benzodiazepines (tranquilizers). Federal CLIP grant funds were used to purchase new toxicology screening equipment. If the laboratory is successful in its reimplementation of toxicology screening, a significant number of new cases may be submitted to the laboratory. Personnel in the lab's drug section are performing the toxicology screening tests. An increase in the number of drug case submissions and an increased demand for toxicology screening may cause excessive backlogs for the laboratory's drug section and jeopardize the lab's ability to perform toxicology testing. This is a variable for which the crime lab has no control.

At this time the laboratory does not have sufficient personnel to implement toxicology confirmations, a process that is very labor intensive. The Washington State Patrol Crime Lab has temporarily agreed to perform confirmation testing on those samples testing positive in the initial screening process. As they are performing the toxicology confirmations pro bono, this agreement could be terminated at any time. The crime lab is attempting to secure grant funds to pay for confirmation testing.

# Implementing DRE in Alaska

The crime lab is coordinating the effort to implement a Drug Recognition Expert (DRE) program in Alaska. The Drug Evaluation and Classification (DEC)/Drug Recognition Expert (DRE) Program is a law enforcement program used to identify and evaluate drivers impaired by substances other than alcohol. It is used successfully in thirty-seven states and many other countries. Used in partnership with prosecutors and toxicologists, the DRE officer is trained to recognize degree of impairment associated with different drug use. Alaska has never participated in this program before, although it has been active since the late 1970s in other states. This situation is changing. Alaska is due to become officially recognized in 2004 and will have the first DRE-certified officer working in that capacity by December 2003. An active Alaska DRE program will increase the number of toxicology samples submitted to the laboratory for screening.

## New Classification for Laboratory Analysts

In order to better utilize laboratory personnel and increase efficiency of the current positions, the crime lab is working with the Department of Administration's Division of Personnel to create a new job classification that combines criminalists and latent fingerprint examiners. This new series, forensic scientists, will give the lab greater flexibility in

hiring, training, and work assignments.

# Multi-Jurisdictional Task Force Grant for Fingerprint Analysis

Funding for personal services via a \$48.9 Multi-Jurisdictional Task Force Grant from the Alaska State Troopers will provide 75 percent of the cost of a laboratory position that performs latent fingerprint analysis on cases involving controlled substances and violent crimes. The crime laboratory will provide \$16.3 for the 25 percent matching funds.

#### Crime Scene Training for Law Enforcement

The Alaska Police Standards Council (APSC) sponsors forensic training presented by the crime laboratory to law enforcement in remote areas. This forensic training would not be available to rural law enforcement without this support, as most small rural Alaska police departments do not have the resources to attend classes in Anchorage. Interagency Receipts of \$9.6 from APSC will fund this training.

# <u>Crime Lab Improvement Program Federal Grant (Capital Budget Item)</u>

The US Department of Justice awarded a \$1,250,000 federal grant for the Crime Laboratory Improvement Program (CLIP) to the Alaska Scientific Crime Detection Laboratory in FY2001 with state authority to expend this grant in FY2002. The CLIP grant, along with a general fund match (\$416,700) will continue to fund the purchase of lab equipment, DNA supplies, and complete the new DNA labs and office areas remodel. The CLIP grant expiration date has been extended to September 30, 2004.

# Significant Changes in Results to be Delivered in FY2005

The crime lab is hopeful it can re-implement toxicology screening for common drugs of abuse as a pilot project by the end of FY2004 with existing staff.

# Major Component Accomplishments in 2003

#### Accreditation

The State of Alaska Scientific Crime Detection Laboratory was first accredited by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB) in September 1996. Accreditation was renewed in 2001 and is effective through September 2006 for controlled substances, trace evidence, serology, DNA, latent prints, firearms/toolmarks, toxicology (blood alcohol), and crime scenes. Accreditation is part of the laboratory's quality assurance program that also includes proficiency testing, continuing education, and other programs to help the laboratory provide better overall service to the criminal justice system. The laboratory continues to meet ASCLD/LAB standards, including completion of the Annual Accreditation Audit Report and participation in prescribed proficiency testing programs.

#### **CODIS**

Alaska's Combined DNA Index System, CODIS, continued to grow during fiscal year 2003. 175 convicted offender DNA profiles were added along with 162 forensic DNA profiles. 119 of these forensic profiles were from "no-suspect" cases. The database generated a total of 21 hits, aiding 30 separate investigations, triple the number of investigations aided in FY2002. Nine of these hits linked a convicted offender to a crime scene sample and 12 were case-to-case hits, indicating that the same perpetrator was involved. Alaska's CODIS program is among the most successful in the nation on a per capita basis.

#### **AFIS**

The number of hits in the Alaska Automated Fingerprint Identification System (AAFIS) increased from 41 in FY2002 to 65 in FY2003. The percentage of AFIS searches generating hits also increased.

#### Statewide Breath Alcohol Program

The crime lab completed the plan of replacing all Intoximeter 3000 DFC breath test instruments with the newer DataMaster cdm breath test instrument in June 2003. The DataMaster is now the sole evidential breath test instrument in Alaska.

#### **DNA Remodel**

The laboratory space formerly used by the State Medical Examiner's Office to perform autopsies was remodeled in

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FY2003, creating new labs and office space for the DNA analysts. Demolition of the former autopsy space began in July 2002, and the contractor completed the major remodel work in December 2002. DNA analysts finished moving into the newly remodeled space in April 2003. The laboratory areas formerly occupied by the DNA analysts have been converted for use by Toxicology and Trace Evidence.

### Significant Cases Aided in 2003

DNA testing at the crime laboratory exonerated an individual arrested for the rape of a University of Alaska-Anchorage student that occurred on campus in September 2002. The perpetrator of the sexual assault was identified when DNA evidence recovered from the victim was matched against a DNA profile from a known convicted offender contained in Alaska's CODIS DNA database.

Fingerprint evidence developed at the crime laboratory and presented to the Grand Jury in March 2003 led to the arrest of an individual in Oklahoma in connection to a 1985 shooting and homicide in the Kenai/Soldotna area.

In 1993 crime lab personnel collected evidence from the scene of an unsolved homicide in Kodiak. Using state-of-the-art DNA technology in February 2003, the crime lab was able to provide investigators with new information that changed the direction of this on-going investigation.

The lab's crime scene team responded to a crime scene request in southeast Alaska, and latent fingerprint evidence was collected from the victim's house. A suspect's fingerprints were identified on numerous items in the residence.

## **Publications**

Members of the laboratory staff co-authored a paper titled "Population Studies on Three Native Alaska Population Groups Using STR Loci" was published in the Forensic Science International journal, Volume 129, pages 51-57, in September 2002.

#### Achievement

Alaska's firearms examiner was president of the Association of Firearm and Tool Mark Examiners from May 2002 to May 2003. This is an international association with over 500 members from over three dozen countries.

Services provided by the Scientific Crime Detection Laboratory during FY2003 include the following:

1	) C	rim	inal	listi	cs.
т.	,	1111	ma	เเงเ	US.

Number of case submittals	88
Number of reports issued	48
Remaining case submittals	60

#### Firearms/Toolmarks:

Number of case submittals	99
Number of reports issued	66
Remaining case submittals	87

#### Trace Evidence:

Number of case submittals	206
Number of reports issued	35
Remaining case submittals	151

# Serology/DNA:

Number of case submittals	553
Number of reports issued	588
Remaining case submittals	207

#### DNA Identification System:

Number of convicted offender samples received	865
Number of samples sent to contract lab for analysis	54
Number of CODIS entries performed	161

# Controlled Substances:

Number of case submittals	820
Number of reports issued	887
Remaining case submittals	16

7)	Blood Alcohol: Number of case submittals Number of reports issued Remaining case submittals	172 194 1
8)	Latent Prints: Number of case submittals Number of reports issued Remaining case submittals	724 1,038 26
9)	Crime Scene Investigations: Number of major scenes Number of reports issued Number of hours away from lab Remaining case submittals	32 41 543 6
10	Number of instruments in service Number of DWI tests Number of minor consuming tests Number of trained instructors Number of trained operators	78 4,453 125 109 1,232
11	) Court: Number of times testified Number of hours away from lab	135 1,066
12	<ul> <li>Instruction provided to Law Enforcement Number of classes</li> <li>Number of attendees</li> <li>Number of hours away from lab</li> </ul>	nt: 21 327 760

# **Statutory and Regulatory Authority**

- 1) DPS DNA ID System (AS 44.41.035)
- 2) DPS Fingerprint System (AS 44.41.025)
- 3) DPS Powers and duties of department (AS 44.41.020)
- 4) State Troopers Department to assist Other Agencies (AS 18.65.090)
- 5) State Troopers Fingerprint Information (AS 18.65.050)
- 6) DPS Forensic Alcohol Testing Regulations (13 AAC 63)

## **Contact Information**

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C	Laboratory Services	nmary	
	EV2002 Actuals	FY2004 Authorized	ollars shown in thousands
Non-Formula Program:	FY2003 Actuals	F12004 Authorized	FY2005 Governor
Component Expenditures:			
71000 Personal Services	1,881.6	2,090.5	2,197.8
72000 Travel	29.1	48.0	48.0
73000 Contractual	290.6	374.1	374.1
74000 Supplies	203.1	154.2	154.2
75000 Equipment	77.4	2.0	2.0
76000 Land/Buildings	0.0	0.0	0.0
77000 Grants, Claims	0.0	0.0	0.0
78000 Miscellaneous	0.0	0.0	0.0
Expenditure Totals	2,481.8	2,668.8	2,776.1
Funding Sources:			
1002 Federal Receipts	0.0	80.7	80.7
1003 General Fund Match	13.1	13.3	13.3
1004 General Fund Receipts	2,410.3	2,509.9	2,615.3
1007 Inter-Agency Receipts	58.4	64.9	66.8
Funding Totals	2,481.8	2,668.8	2,776.1

Estimated Revenue Collections					
Description	Master Revenue Account	FY2003 Actuals	FY2004 Authorized	FY2005 Governor	
<u>Unrestricted Revenues</u> None.		0.0	0.0	0.0	
Unrestricted Total		0.0	0.0	0.0	
Restricted Revenues					
Federal Receipts	51010	0.0	80.7	80.7	
Interagency Receipts	51015	58.4	64.9	66.8	
Restricted Total		58.4	145.6	147.5	
Total Estimated		58.4	145.6	147.5	
Revenues					

66.8

2,776.1

#### **Summary of Component Budget Changes** From FY2004 Authorized to FY2005 Governor All dollars shown in thousands **General Funds** Federal Funds Other Funds **Total Funds** FY2004 Authorized 2,523.2 80.7 64.9 2,668.8 Adjustments which will continue current level of service: -Transfer GF to Laboratory Services 23.0 23.0 0.0 0.0 for Statewide Services Division Director Shared Costs - ADN 1240091 -Changes to Retirement and Other 82.4 0.0 1.9 84.3 Personal Services Rates

80.7

2,628.6

FY2005 Governor

Laboratory Services Personal Services Information								
	Authorized Positions		Personal Services Costs					
	FY2004	FY2005						
	Authorized	Governor	Annual Salaries	1,540,857				
Full-time	29	29	Premium Pay	17,210				
Part-time	0	0	Annual Benefits	728,716				
Nonpermanent	0	0	Less 3.89% Vacancy Factor	(88,983)				
			Lump Sum Premium Pay	, , ,				
Totals	29	29	Total Personal Services	2,197,800				

Position Classification Summary								
Job Class Title	Anchorage	Fairbanks	Juneau	Others	Total			
Administrative Assistant	1	0	0	0	1			
Administrative Clerk III	2	0	0	0	2			
Criminalist II	3	0	0	0	3			
Criminalist III	10	0	0	0	10			
Criminalist IV	4	0	0	0	4			
Forensic Lab Supervisor	1	0	0	0	1			
Forensic Technician	4	0	0	0	4			
Latent Fingerprint Ex III	3	0	0	0	3			
Maint Spec Bfc Jrny II/Lead	1	0	0	0	1			
Totals	29	0	0	0	29			